

Racial and ethnic variations in incidence of hepatocellular cancer

The increasing incidence of hepatocellular carcinoma coupled with this cancer's high mortality is a public health problem. Delineating high-risk populations and cancer patterns can provide valuable information. This is necessary to broaden screening and surveillance guidelines related to early detection and prevention.

By using data collected by the Surveillance, Epidemiology, and End Results programme, a population-based cancer registry in the United States, this retrospective cohort study evaluated sex-specific, race/ethnicity-specific, and age-specific variations in hepatocellular carcinoma incidence from 1992 to 2004.

With men and women combined, the incidence of hepatocellular carcinoma

among Asians was the highest, nearly double that of white Hispanics, and more than four times higher than that of Caucasians. Although male subjects demonstrated a doubling of cancer rates every 10 years from 30–50 years of age, female subjects reached male-comparable rates of cancer 10–15 years later and peaked at significantly lower values for all race and ethnic groups.

The study concluded that marked differences in the incidence rates of hepatocellular carcinoma by sex, ethnicity, and age of diagnosis likely represent variations in risk factor distributions and possibly in host genetics or other environmental factors. An individualized approach tailored to specific risk profiles may identify treatable tumours more effectively than more general guidelines.

Wong R (2008) Racial and ethnic variations in hepatocellular carcinoma incidence within the United States. *Am J Med* **121**: 525–31

larization for ischaemia, and stroke within 30 days.

It was found that in patients with ST segment elevation myocardial infarction who are undergoing primary percutaneous coronary intervention, anticoagulation with bivalirudin alone, as compared with heparin plus glycoprotein IIb/IIIa inhibitors, results in significantly reduced 30-day rates of major bleeding and net adverse clinical events.

Stone G, Witzenbichler B, Guagliumi G et al (2008) Bivalirudin during primary PCI in acute myocardial infarction. *N Engl J Med* **358**: 2218–30

Effect of clopidogrel on early failure of arteriovenous fistulas for haemodialysis

The arteriovenous fistula is the preferred type of vascular access for haemodialysis because of lower thrombosis and infection rates and lower health-care expenditures compared with synthetic grafts or central venous catheters. Early failure of fistulas as a result of thrombosis or inadequate maturation is a barrier to increasing the prevalence of fistulas among patients with haemodialysis. Small, inconclusive trials have suggested that antiplatelet agents may reduce thrombosis or new fistulas. The aim of this study was to determine whether clopidogrel reduces early failure of haemodialysis fistulas.

A randomized, double-blind, placebo-controlled trial was conducted at nine American centres. A total of 877 patients with end-stage renal disease or advanced chronic kidney disease were followed up until 150–180 days after fistula creation or 30 days after initiation of dialysis, whichever occurred later. Participants were randomly assigned to receive clopidogrel or placebo for 6 weeks starting within 1 day after fistula creation.

The group found that clopidogrel reduces the frequency of early thrombosis of new arteriovenous fistulas but does not increase the proportion of fistulas that become suitable for dialysis.

Dember L, Beck G, Allon M et al (2008) Effect of clopidogrel on early failure of arteriovenous fistulas for haemodialysis. *JAMA* **299**: 2164–71

Comparison of low-fat and Mediterranean-style diets after first myocardial infarction

Whether a Mediterranean-style diet reduces cardiovascular events and mortality more than a low-fat diet is uncertain. The aims of this study were to actively compare low-fat and Mediterranean-style diets after myocardial infarction in a randomized, controlled clinical trial and to compare dietary intervention with usual care in a case-control analysis.

First myocardial infarction survivors were randomized to a low-fat or Mediterranean-style diet. The two diets were low in saturated fat and cholesterol; the Mediterranean-style diet was distinguished by greater omega-3 fat intake.

The group found that active intervention with either a low-fat diet or a Mediterranean-style diet similarly and significantly benefits overall survival and cardiovascular-event-free survival after myocardial infarction.

Tuttle K, Shuler L, Packard D et al (2008) Comparison of low-fat versus Mediterranean-style dietary intervention after first myocardial infarction (from The Heart Institute of Spokane Diet Intervention and Evaluation Trial). *Am J Cardiol* **101**: 1523–30

Bivalirudin during primary percutaneous coronary intervention in acute myocardial infarction

Treatment with the direct thrombin inhibitor bivalirudin, compared with heparin plus glycoprotein IIb/IIIa inhibitors, results in similar suppression of ischaemia while reducing haemorrhagic complications in patients with stable angina and non-ST segment elevation acute coronary syndromes who are undergoing percutaneous coronary intervention. The safety and efficacy of bivalirudin in high-risk patients is unknown.

The study team randomly assigned 3602 patients with ST segment elevation myocardial infarction who presented within 12 hours after the onset of symptoms and who were undergoing primary percutaneous coronary intervention to treatment with heparin plus a glycoprotein IIb/IIIa inhibitor or to treatment with bivalirudin alone.

The two primary end points of the study were major bleeding and combined adverse clinical events, defined as the combination of major bleeding or major adverse cardiovascular events, including death, reinfarction, target vessel revascu-